

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of the Claims:

1. (Original) A method comprising:

receiving information for transmission to a receiver; and

generating a plurality of sub-carriers to redundantly transmit the

information to a user over a multi-carrier wireless communication

channel, wherein each of the sub-carriers is modified by a set of complex

weights to ensure that each of the sub-carriers of the wireless

communication channel propagates along a different physical path to the

receiver.

2. (Original) A method according to claim 1, wherein each element of the set

of complex weights scales one or more of a sub-carriers amplitude and/or phase

at an associated transmission antenna.

3. (Original) A method according to claim 1, wherein developing a set of complex weights comprises:

choosing substantially different weights for each sub-carrier
sharing information; and
iteratively repeating until all sub-carriers have been modified.

4. (Original) A method according to claim 3, wherein the substantially different weights are chosen to be orthogonal to the others.

5. (Original) A method according to claim 3, wherein developing a set of complex weights comprises:

selecting weight vector(s) to be applied to each of the sub-carriers
from a pre-determined set of weight vectors.

6. (Original) A method according to claim 1, further comprising:

transmitting the modified sub-carriers through one or more
antenna(e) to the receiver.

7. (Original) A transceiver comprising:

a diversity agent, to selectively develop and apply a set of complex weight values to each of a plurality of signals, each corresponding to a sub-carrier of a multi-carrier communication channel, to introduce spatial diversity between such sub-carriers; and

a transmit module, coupled with the diversity agent, to receive the modified sub-carriers and transmit the signals to generate a multi-carrier communication channel with intra-channel spatial diversity.

8. (Original) A transceiver according to claim 7, wherein the plurality of signals received from at the diversity agent are baseband signals.

9. (Original) A transceiver according to claim 7, wherein the multi-carrier communication channel is comprised of a plurality of sub-carrier signals, each having a disparate set of complex weights introduced at a baseband of the sub-carriers to effect the spatial diversity between the sub-carriers.

10. (Original) A transceiver according to claim 7, wherein each of the set of complex weights are comprised of a plurality of weight values each associated with one of a plurality of antennae comprising an antenna array through which the sub-carriers are transmitted.

11. (Original) A transceiver according to claim 10, wherein the diversity agent develops the set of complex weight values for a given baseband signal to be maximally orthogonal complex weight values applied to another baseband signal.

12. (Original) A transceiver according to claim 10, wherein the diversity agent develops the set of complex weight vectors for a sub-carrier that are substantially different from weight vectors modifying other sub-carriers that include at least a subset of information carried by the sub-carrier.

13. (Original) A transceiver according to claim 7, wherein the transmit module upconverts and amplifies each of the modified baseband signals to generate a plurality of spatially diverse sub-carriers.

14. (Original) A transceiver according to claim 13, wherein the transmit module transmits each of the sub-carriers to one or more receiver(s).
15. (Original) A transceiver according to claim 7, further comprising:
 - a memory having stored therein content; and
 - control logic, coupled to the memory, to access and process at least a subset of the content to implement the diversity agent.